MADROÑO

A WEST AMERICAN JOURNAL OF BOTANY

VOLUME XXXII
1985

BOARD OF EDITORS

Class of:

1985—Sterling C. Keeley, Whittier College, Whittier, CA
Arthur C. Gibson, University of California, Los Angeles

1986—Amy Jean Gilmartin, Washington State University, Pullman
Robert A. Schlising, California State University, Chico

1987—J. Rzedowski, Instituto de Ecologia, A.C., Mexico
Dorothy Douglas, Boise State University, Boise, ID

1988—Susan G. Conard, USDA Forest Service, Riverside, CA
William B. Critchfield, USDA Forest Service, Berkeley, CA

1989—Frank Vasek, University of California, Riverside
Barbara Ertter, University of California, Berkeley

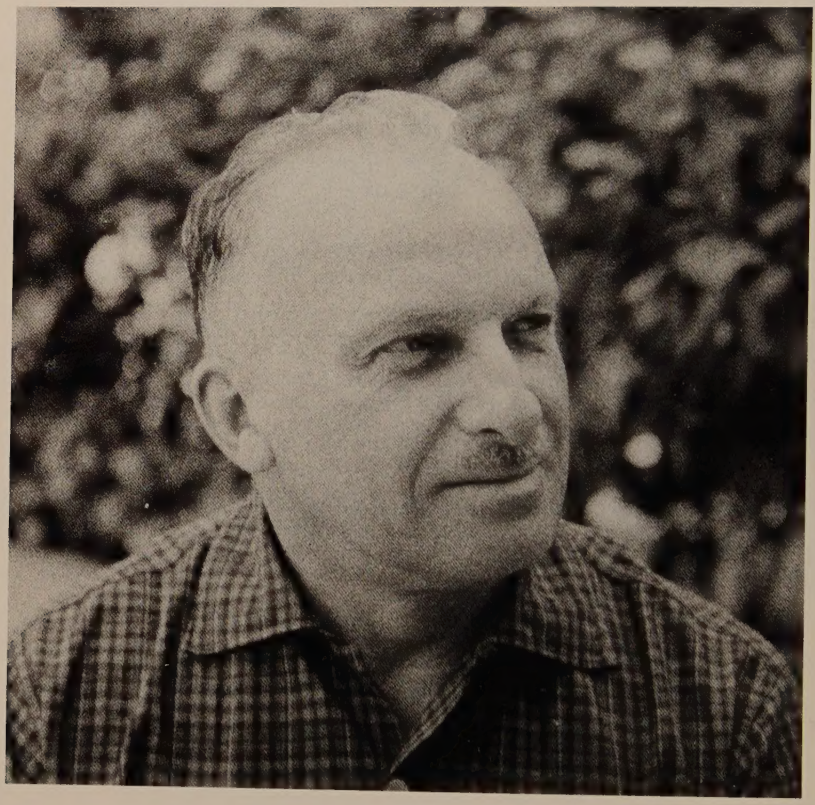
Editor—Christopher Davidson [32(1–3)]
Idaho Botanical Garden, P.O. Box 2140, Boise, ID 83701

—Wayne R. Ferren, Jr. [32(4)]

Associate Editor—J. Robert Haller [32(4)]
Department of Biological Sciences
University of California, Santa Barbara, CA 93106

Published quarterly by the
California Botanical Society, Inc.
Life Sciences Building, University of California, Berkeley 94720

Printed by Allen Press, Inc., Lawrence, KS 66044



To Rimo Bacigalupi, "Ba[t]ch," first Curator of the Jepson Herbarium and Library (1950–1968) for his lifelong devotion to Nature and The Arts, for his extraordinary knowledge of the California flora that he generously shared with colleagues and successive generations of students, for his helpfulness as a linguist and botanical Latinist, for his warm personality, and for his civilizing influence, volume 32 is affectionately dedicated. Photo taken in 1959 by Marion Cave.

TABLE OF CONTENTS

ALLEN, ROBERT L. (see Keil, David J. et al.)
ANDERSON, J. (see Schaack, C. G.)
ATWOOD, DUANE (see Goodrich, S.)
BAKER, H. G., Review of *Insects and flowers: the biology of a partnership* (by Friedrich G. Barth, translated by M. A. Biederman-Thorson) 276
BORCHERT, MARK, Serotiny and cone-habit variation in populations of *Pinus coulteri* (Pinaceae) in the Southern Coast Ranges of California 29
BOWERS, JANICE E. and RAYMOND M. TURNER, A revised vascular flora of Tumamoc Hill, Tucson, Arizona 225
BUT, PAUL P. H., JIMMY KAGAN, VIRGINIA L. CROSBY, and J. STEPHEN SHELLY, Rediscovery and reproductive biology of *Pleuropogon oregonus* (Poaceae) 189
CHAMBERS, KENTON L., Pitfalls in identifying *Ventenata dubia* (Poaceae) 120
CHAMBERS, KENTON L. (see also Hammond, Paul C.)
CONARD, SUSAN G., Inhibition of *Abies concolor* radicle growth by extracts of *Ceanothus velutinus* 118
CONARD, SUSAN G., Review of *Bibliographies on chaparral and the fire ecology of other Mediterranean systems* (by Jon E. Keeley) 276
CROSBY, VIRGINIA L. (see But, Paul P. H.)
DESPAIN, DON G., Review of *Forest succession and stand development research in the Northwest* (edited by Joseph E. Means) 278
DORN, ROBERT D., Review of *Aven Nelson of Wyoming* (by Roger L. Williams) 194
ELISENS, WAYNE J., The systematic relationship of *Asarina procumbens* to New World species in Tribe Antirrhineae (Scrophulariaceae) 168
ELLIS, BARBARA A. (see Kummerow, Jocken et al.)
ERTTER, BARBARA, *Paronychia ahartii* (Caryophyllaceae), a new species from California 87
FREEMAN, C. EDWARD and RICHARD D. WORTHINGTON, Some floral nectar-sugar compositions of species from southeastern Arizona and southwestern New Mexico 78
GOODRICH, SHEREL, DUANE ATWOOD, and ELIZABETH NEESE, Noteworthy collections of *Aster sibiricus, Gnaphalium viscoscum, Draba douglasii, Astragalus robbinsii,* and *Ribes laxiflorum* 125
HAMMOND, PAUL C. and KENTON L. CHAMBERS, A new species of *Erythronium* from the Coast Range of Oregon 49
HARMS, VERNON L., A reconsideration of the nomenclature and taxonomy of the *Festuca altaica* complex (Poaceae) in North America 1
HARTMAN, EMILY L. and MARY LOU ROTTMAN, The alpine vascular flora of three cirque basins in the San Juan Mountains, Colorado 253
HARTMAN, EMILY L. (see also Price, Robert A. et al.)
HARTMAN, RONALD L., B. E. NELSON, and KEITH H. DUEHOLM, Noteworthy collections of *Aristida oligantha, Boisduvalia glabella, Celtis occidentalis* var. *occidentalis, Claytonia lanceolata* var. *flava, Eragrostis trichodes* var. *tricodes, Euphorbia serpens, Larix occidentalis, Leptodactylon watsonii, Loeflingia squarrosa* subsp. *texana, Linaria canadensis* var. *texana, Monardella odoratissima* subsp. *glauca, Opuntia macrorhiza* var. *macrorhiza, Pectis angustifolia* var. *angustifolia, Physalis hederaefolia* var. *comota, Potentilla hookeriana, Rorippa truncata, Scirpus heterochaetus, Thellungiella salsuginea,* and *Veratrum tenuipetalum* 125
HECKARD, LAWRENCE R. and JAMES R. SHEVOCK, *Mimulus norrisii* (Scrophulariaceae), a new species from the southern Sierra Nevada 179

HENRICKSON, JAMES, Review of *Intermountain flora: vascular plants of the intermountain west, U.S.A.* Volume 4 (by A. H. Holmgren, N. H. Holmgren, J. L. Reveal, and P. K. Holmgren) 58
HENRICKSON, JAMES, Notes on the genus *Burroughsia* (Verbenaceae) 186
HUFT, MICHAEL J. and HENK VAN DER WERFF, Observations on *Chamaesyce* (Euphorbiaceae) in the Galápagos Islands 143
JOKERST, JAMES D., Noteworthy collection of *Juncus cyperoides* 191
JOSSELYN, MICHAEL (see Spicher, Douglas)
JOYAL, ELAINE, Noteworthy collection of *Amsinckia carinata* 124
KAGAN, JIMMY (see But, Paul P. H.)
KEIL, DAVID J., ROBERT L. ALLEN, JOY H. NISHIDA, and ERIC A. WISE, Addenda to the vascular flora of San Luis Obispo County, California 214
KELLEY, WALTER and DIETER H. WILKEN, Noteworthy collection of *Phacelia constancei* 57
KOUTNIK, DARYL L., New combinations in California *Chamaesyce* (Euphorbiaceae) 187
KUMMEROW, JOCKEN, BARBARA A. ELLIS, and JAMES N. MILLS, Post-fire seedling establishment of *Adenostoma fasciculatum* and *Ceanothus greggii* in southern California chaparral 148
LAVIN, MATT, The identity of *Cracca* Bentham (Fabaceae, Robinieae) in the United States 95
LEVIN, GEOFFREY A., Noteworthy collection of *Grayia brandegei* 192
MAJOR, JACK, Review of *California riparian systems: ecology, conservation, and productive management* (edited by Richard E. Warner and Kathleen M. Hendrix) 277
MAJOR, JACK, Review of *Vascular plants of Montana* (by Robert D. Dorn) 193
MARRS-SMITH, GAYLE, Noteworthy collections of *Corchorus hirtus* and *Ibervillea tenuisecta* 191
MCARTHUR, E. DURANT and STEWART C. SANDERSON, A cytotaxonomic contribution to the western North American rosaceous flora 24
MCINTOSH, LAIRD, Noteworthy collection of *Rhynchelytrum repens* 192
MILLS, JAMES N. (see Kummerow, Jocken et al.)
MOREFIELD, JAMES D., Noteworthy collections of *Dedeckera eurekensis* and *Opuntia pulchella* 123
MOREFIELD, JAMES D. (see C. G. Schaack)
NEESE, ELIZABETH (see Goodrich, Sherel)
NEISESS, KURT, Notes on the *Salvia leucophylla* complex (Lamiaceae) of California and Baja California Norte 273
NELSON, T. W. and R. PATTERSON, A new subspecies of perennial *Linanthus* (Polemoniaceae) from the Klamath Mountains, California 102
NISHIDA, JOY H. (see Keil, David J. et al.)
ODION, DENNIS C., Noteworthy collection of *Dicentra pauciflora* 57
PACK, STEVEN R. (see Vickery, Robert K., Jr.)
PATTERSON, R. (see Nelson, T. W.)
PAVLIK, BRUCE M., Sand dune flora of the Great Basin and Mojave Deserts of California, Nevada, and Oregon 197
PELLMYR, OLLE, Yellow jackets disperse *Vancouveria* seeds (Berberidaceae) 56
PERRY, J. P., JR., Noteworthy collection of *Pinus patula* var. *longepedunculata* 192
PHILLIPS, DENNIS R. (see Vickery, R. K., Jr.)
PRICE, ROBERT A., Noteworthy collection of *Draba spectabilis* var. *oxyloba* 192
PRICE, ROBERT A., MARY LOU ROTTMAN, and EMILY HARTMAN, Noteworthy collection of *Draba apiculata* 191
REVEAL, JACK L. and JAMES L. REVEAL, The missing Frémont Cannon—an ecological solution? 106

REVEAL, JAMES L. (see Reveal, Jack L.)
ROMINGER, J. M. (see Schaack, C. G.)
ROTTMAN, MARY LOU (see Hartman, Emily L.)
ROTTMAN, MARY LOU (see Price, Robert A. et al.)
RICHARDS, DANIEL V., Noteworthy collections of *Spirodela punctata* and *Wolffia borealis* 57
SANDERSON, STEWART C. (see McArthur, E. Durant)
SCHAACK, C. G. and J. D. MOREFIELD, Noteworthy collections of *Antennaria microphylla, Aquilegia chrysantha, Carex haydeniana, Pinus flexilis,* and *Potentilla nivea* 121
SCHAACK, C. G., J. D. MOREFIELD, J. M. ROMINGER, and J. ANDERSON, Noteworthy collection of *Cowania subintegra* 122
SCHOOLCRAFT, GARY and ARNOLD TIEHM, Noteworthy collections of *Dalea ornata, Ivesia baileyi, Cryptantha celosioides, Eriogonum crosbyae, E. prociduum, Ivesia rhypara, Mentzelia packardiae, Phacelia thermalis,* and *Scutellaria holmgreniorum* 123
SHELLY, J. STEPHEN (see But, Paul P. H.)
SHEVOCK, JAMES R. (see Heckard, Lawrence R.)
SPICHER, DOUGLAS and MICHAEL JOSSELYN, *Spartina* (Gramineae) in northern California: distribution and taxonomic notes 158
TIEHM, ARNOLD (see Schoolcraft, Gary)
TURNER, RAYMOND M. (see Bowers, Janice E.)
VAN DER WERFF, HENK (see Huft, Michael J.)
VASEK, FRANK C., Southern California white fir (Pinaceae) 65
VASEY, MICHAEL C., The specific status of *Lasthenia maritima* (Asteraceae), an endemic of seabird-breeding habitats 131
VICKERY, ROBERT K., JR., STEVEN A. WERNER, DENNIS R. PHILLIPS, and STEVEN R. PACK, Chromosome counts in Section *Simiolus* of the genus *Mimulus* (Scrophulariaceae). X. The *M. glabratus* complex 91
WELLS, PHILIP V. and DEBORAH WOODCOCK, Full-glacial vegetation of Death Valley, California: juniper woodland opening to *Yucca* semidesert 11
WERNER, STEVEN A. (see Vickery, Robert K., Jr.)
WILKEN, DIETER H. (see Kelley, Walter)
WISE, ERIC A. (see Keil, David J. et al.)
WOODCOCK, DEBORAH (see Wells, Philip V.)
WORTHINGTON, RICHARD D. (see Freeman, C. Edward)